Set	Items	Description
S1	35	APTAMER (S) PCR
S2	14	RD (unique items)
S3	12	S2 NOT PY>=1999
S4	43	AU="DODGE A H" OR AU="DODGE A."
S5	35	RD (unique items)

0140950 DBA Accession No.: 92-13442 PATENT
DNA aptamer specific for target molecules - useful for retrieving target molecules, delivering drugs or toxins to desired targets and for autoimmune disease therapy
PATENT ASSIGNEE: Gilead-Sci. 1992
PATENT NUMBER: WO 9214843 PATENT DATE: 920903 WPI ACCESSION NO.: 92-316194 (9238)
PRIORITY APPLIC. NO.: US 787921 APPLIC. DATE: 911106
NATIONAL APPLIC. NO.: WO 92US1383 APPLIC. DATE: 920221
LANGUAGE: English
ABSTRACT: A single-stranded DNA %aptamer% (I) (6-50 residues) containing at least 1 binding region (less than 10 residues) for a target (T) not normally binding oligonucleotides of dissociation constant (Kd) below 20 x 10 power -19 is claimed. The Kd with respect to (I) and T is at least 5-fold less than that for (I) and unrelated molecules. T is preferably bradykinin, platelet-derived growth factor-2-alpha, CD4, HER2, interleukin-1 receptor, Factor-X, thrombin, botulinum or diphtheria toxin, collagenase, tumor necrosis factor (TNF), antithrombin-III, interleukin, elastase, fibroblast growth factor, oncoprotein, dihydrofolate-reductase, HLA antigens, TNF receptor, epidermal growth factor receptor, CD62, ICAM, VCAM-1 and ELAM-1, glycoprotein, saccharide, glucosaminoglycan, glycolipid, aflatoxin, etc. Oligomers binding specific Ts can be identified by complexing T with a mixture of oligonucleotides containing random sequences and sequences which serve as primers for polymerase chain reaction (%PCR%). The oligomers are isolated by %PCR% and used as therapeutics and diagnostics. Methods for obtaining aptamers and secondary aptamers are also claimed. (178pp)
DESCRIPTORS: single-stranded DNA aptamer appl. therapeutic, diagnostic, hybridization DNA sequence

3/5/2 (Item 1 from file: 76)
DIALOG(R)File 76:Life Sciences Collection

01749249 3503918
10 super(20)-fold aptamer library amplification without gel purification
Crameri, A.; Stemmer, W.P.C.
Affymax Res. Inst., 4001 Miranda Ave., Palo Alto, CA 94304, USA
NUCLEIC ACIDS RES. vol. 21, no. 18, p. 4410 (1993)
ISSN: 0305-1048
DOCUMENT TYPE: Journal article LANGUAGE: ENGLISH
SUBFILE: Biochemistry Abstracts 2: Nucleic Acids

We report %PCR% conditions that completely eliminate the need for gel purification of the %PCR% product. Starting with a library of 6 x 10 super(16) ssDNA molecules and subsequent to 10 rounds of selection and amplification (a total of 200 cycles of %PCR% resulting in a 10 super(20)-fold amplification, measured in each round using internally super(33)P labeled ssDNA), agarose gel analysis shows the %PCR% product to be as uniform in size as the starting material. This result has been consistent for 12 protein targets (2500 total cycles). Since the amplification format of both RNA and DNA %aptamer% libraries is similar (pools of 10 super(13) - 10 super(18) dsDNAs flanked by fixed primer sites), we expect our results to be applicable also to RNA %aptamer% libraries.

DESCRIPTORS: DNA; RNA; polymerase chain reaction; gel electrophoresis; gene amplification; methodology
IDENTIFIERS: library; aptamer